

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent

appln. of: Thomas Welsh et al.

Serial No.: 09/935,926

Filed: August 23, 2001

For: **LINEAR COMPRESSION
LATCH**

Examiner: Carlos Lugo

Art Unit: 3676

Att'y Docket: 195-01

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P.O. Box 1450
Alexandria, VA 22313-1450

BOARD OF PATENT APPEALS
AND INTERFERENCES

APPEAL BRIEF

Sir:

This appeal brief is being submitted electronically on January 23, 2007 in support of Notice of Appeal mailed under Certificate of Mailing on November 7, 2006, in response to the Examiner's Action mailed August 7, 2006 in the above-referenced patent application finally rejecting claims 9-11 and objecting to claims 12 and 13. A petition for a one month extension of time accompanies this appeal brief.

I. Real Party in Interest

This application has been assigned to Southco, Inc., a Delaware corporation.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of the Claims

The claims in the application are claims 9 – 16.

Claims 14 – 16 stand allowed.

Claims 9 – 11 stand finally rejected.

Claims 12 and 13 are objected to as being dependent on a rejected base claim.

The claims on appeal are claims 9 – 13.

IV. Status of Amendments

There were no amendments filed subsequent to the final rejection. The claims were last amended in response to the Examiner's Action on November 23, 2005 in the application.

V. Summary of the Invention

The present invention provides a simple linear compression latch that can be easily and securely mounted to a door or panel.

In particular, as embodied in independent claim 9, the presently claimed invention relates to a linear compression latch (Fig. 1, 10) comprising a housing (20) and a lever handle (100) rotatable by an operator between a first position and a second position (page 2, lines 26 - 27). The lever handle (100) is mounted in the housing (20; page 2, lines 26 - 27). The latch (10) also comprises a pawl (140) mounted for

substantially linear motion (page 2, line 28). The pawl (140) is actuated by rotation of the lever handle (100; page 2, lines 28 - 29). The pawl (140) travels substantially linearly between an open position to a closed position as the lever handle (100) is rotated between the first position to second position (page 2, lines 29 - 31). The pawl (140) is mounted to travel between the open position along a first path and an intermediate position (page 2, lines 31 - 32). Further, the pawl (140) is mounted to travel in a second path in a direction substantially perpendicular to the first path between the intermediate position and the closed position (page 2, lines 32 - 34).

VI. Grounds of Rejection To Be Reviewed On Appeal

Claims 9 – 11 were rejected as anticipated under 35 U.S.C. § 102(b) by U.S. Patent 818,303 ("Seaman").

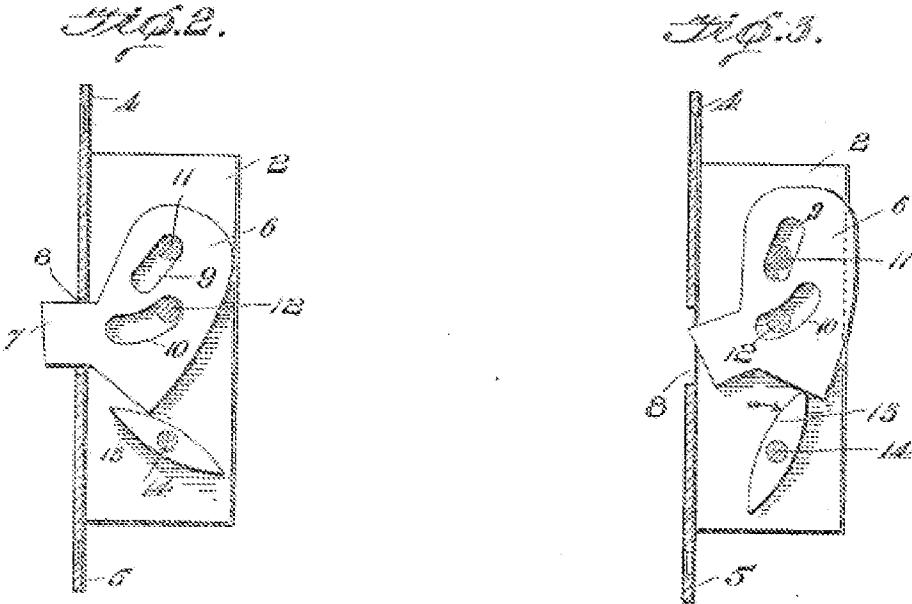
VII. Argument

The Examiner's misconstrues Seaman, and the reference fails to disclose or suggest every element of applicants' invention.

A. THE EXAMINER MISCONSTRUES THE PRIOR ART

The Examiner's comments in the Action mailed August 7, 2006 responding to applicants' amendment filed February 15, 2006 reflect a misunderstanding of the disclosure of the reference upon which the sole rejection is based.

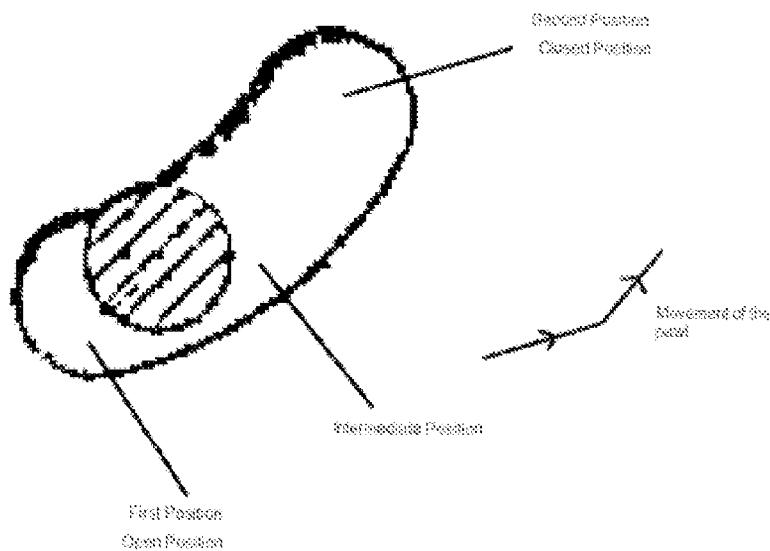
Seaman discloses a sash fastener for use with a sash or window frame, so as to lock the sash at any elevation, as shown in Seaman Figures 2 and 3 reproduced below. Figure 2 shows the sash fastener in a closed and locked position, while Figure 3 shows the sash fastener in an open and unlocked position.



To open the sash fastener, an operator turns tumbler 13 in the direction of the arrow (clockwise in Figure 2), elevating the arm 6 and bringing the lower portions of slots 9 and 10 into contact with pins 11 and 12, respectively, and swinging the arm rearwardly to withdraw the bolt 7 out of engagement with a keeper (not shown). When the tumbler 13 has been turned to the position shown in Figure 3, the sash fastener is in the open position and the sash or window frame in which the sash fastener is installed can be opened or closed. However as the tumbler 13 turns, it will eventually disengage with arm 6, allowing the arm 6 to gravitate and automatically return to its original locked position (in Figure 2) (page 2, lines 26 - 41).

The rotation of the bolt 7 occurs in a back and forth fashion. The bolt 7 travels along a curved path defined by the slots 9 and 10 and pins 11 and 12. Pin 11 acts as a shiftable center (page 1, lines 81 - 86). The bolt 7 is retracted by simultaneously lifting and swinging it rearwardly, whereby the lower end of the bolt swings to the right and the upper end swings to the left around the pin 11, and whereby the contact point of bolt 7 upon the pin 11 shifts downwardly within slot 9 so as to permit the desired swinging movement of bolt 7 and unlock the sash fastener (page 1, lines 94 - 102).

The Examiner concludes that “[t]he pawl is mounted to travel between the open position along a first path and an intermediate position [and] mounted to travel in a second path in an upward direction substantially perpendicular to the first path between the intermediate position and the closed position.” Office Action of August 7, 2006, page 2. In support of the Examiner’s assertions, the following diagram was attached to the Office Action which is a magnified view of pin 12 and slot 10.



However, the Examiner misstates the motion of the bolt 7 as disclosed by Seaman.

The two paths demonstrated in the Examiner’s diagram do not accurately represent the motion of the bolt 7. The Examiner asserts that when bolt 7 travels from a first open position to the intermediate position, the bolt 7 travels in a straight line and then the bolt 7 abruptly changes direction to a different linear path to the second closed position. Not only are the two paths drawn by the Examiner not substantially perpendicular, but the bolt 7 will never travel the two linear paths as drawn. This is due to the fact that the slot 10 included by the Examiner in the diagram is curved and the pin 12 forces the bolt 7 to travel along an arcuate, non-linear path. In addition, as previously noted, Seaman discloses that the bolt 7 is simultaneously lifted and swung rearwardly in

a rotating motion about pin 11. The bolt 7 simply does not travel along two separate linear paths that are perpendicular to each other.

B. SEAMAN DOES NOT ANTICIPATE CLAIMS 9 – 11.

Claims 9-11 stand finally rejected under 35 U.S.C. § 102(b) as being anticipated by Seaman. Careful consideration and reversal of the rejection are respectfully requested.

The Examiner considers the disclosure, and concludes that “regarding claim 9, Seaman discloses a latch comprising a housing (1), a lever handle (15) mounted on the housing and being rotatable by an operator between a first position and a second position, and a pawl (6) mounted for substantially linear motion, and being actuated by rotation of the lever handle and traveling substantially linearly between an open position to a closed position as the lever handle is rotated between the first position to second position” and that “[t]he pawl is mounted to travel between the open position along a first path and an intermediate position [and] mounted to travel in a second path in an upward direction substantially perpendicular to the first path between the intermediate position and the closed position.” Office Action of August 7, 2006, page 2.

The motion of bolt 7 as disclosed in Seaman does not travel in two perpendicular paths as the Examiner asserts, as required in applicants' independent claim 9. The “second path” identified by the Examiner for the bolt 7 of Seaman does not exist because it is a continuation of the curved path for the bolt 7, as it rotates around pin 11. This motion is not a second linear path and it certainly is not perpendicular to the first half of the distance traveled by the bolt 7 as it is rotating.

Seaman fails to disclose a pawl that travels along a second path substantially perpendicular to a first path; therefore, Seaman fails to anticipate applicants'

independent claim. Seaman also fails to disclose additional elements in applicants' independent claim: a pawl traveling in an upward direction along the second path; a pawl being actuated by rotation of the lever handle; and a pawl mounted for substantially linear motion.

Seaman does not disclose a pawl traveling in an upward direction along the second path from an intermediate to a closed position. Seaman discloses a sash fastener that unlocks due to the rotation of a tumbler 13 which engages a bolt 7. The bolt 7 locks as a natural result of the pull of gravity on the bolt 7. According to the Examiner's diagram provided above, the Examiner identifies the lower end of slot 10 as the first open position and the upper end of slot 10 as the second closed position. According to Seaman's disclosure, the bolt 7 will gravitate to its natural locked position, i.e., from closed to open; therefore, the bolt 7 cannot move upwardly to a second closed position from the open position. Applicants' independent claim includes the element of a pawl that moves in an upward direction from an intermediate to a closed position. Seaman's bolt 7 rotates upward from open to close, and rotates downward from closed to open, but the bolt 7 does not rotate upward from closed to open.

Seaman does not disclose a pawl being actuated by rotation of the lever handle. Seaman discloses that the tumbler 13 does not operate to lock the bolt, but is used solely to retract it (page 2, lines 22 - 25). Therefore, the tumbler 13 does not actuate the swinging bolt 7, but merely releases it as the tumbler 13 is turned.

Finally, Seaman does not disclose a pawl mounted for substantially linear motion. As discussed above, Seaman clearly considers the motion of his "swinging bolt" to be rotational rather than linear. The bolt 7 rotates while traveling along an arcuate path because pin 11 acts as a shiftable center (page 1, lines 81 - 86). The bolt 7 simultaneously lifts and swings rearwardly, so that the lower end of the bolt and the upper end turn counter-clockwise around pin 11 as it shifts downwardly to permit the

desired swinging movement (page 1, lines 94 - 102). This is not a substantially linear motion, but a rotational motion along an arcuate path.

Seaman does not disclose every element of applicants' independent claim 9 or dependent claims 10 and 11. Claims 10 and 11 incorporate every element of independent claim 9 and require that the first and second path along which the pawl travels are linear. Seaman fails to anticipate claims 10 and 11 because Seaman does not anticipate claim 9 and Seaman discloses a single arcuate path, not two perpendicular linear paths. Therefore, Seaman fails to disclose every element of claims 9 – 11.

Reconsideration and reversal of the Examiner's rejection entered under 35 U.S.C. § 102(b) as being anticipated by Seaman is respectfully requested for these reasons. Upon reversal of the rejection of claims 9 – 11, withdrawal of the objections to claims 12 – 13 for being dependent on a rejected base claim is also respectfully requested.

C. APPLICANTS' INVENTION IS NOT OBVIOUS IN VIEW OF SEAMAN

In addition to failing to anticipate claims 9 – 11, a person having ordinary skill in the art at the time the invention was made would not find applicants' invention obvious in view of Seaman. To establish a *prima facie* case of obviousness there must be some suggestion or motivation, either in the reference or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Seaman does not provide a suggestion or motivation to modify the sash fastener to create applicants' compression latch, nor is there a reasonable likelihood of success that Seaman's sash fastener can be modified to be used as a compression latch.

Seaman discloses a bolt 7 that naturally locks due to gravity (page 1, lines 103 - 108) and a tumbler 13 that does not assist in locking the bolt (page 2, lines 23 - 25); therefore, the sash fastener taught by Seaman does not suggest a latch capable of latching a panel to the frame in which it is mounted and sealing the edge of the panel to the frame when it is closed. A fastener that locks solely due to the force of gravity cannot seal an edge of a panel like applicants' compression latch. As explained above, Seaman fails to disclose all of the claim limitations of applicants' invention. Thus, Seaman does not meet any of the criteria needed to establish a *prima facie* case of obviousness.

VIII. Conclusion

As all claims as amended are believed to be in condition for allowance, an early favorable action and reversal of the rejections and objections entered by the Examiner are earnestly solicited.

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Respectfully submitted,

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APPENDIX

CLAIMS ON APPEAL:

9. A linear compression latch comprising:
 - a housing;
 - a lever handle rotatable by an operator between a first position and a second position, the lever handle being mounted in the housing;
 - a pawl mounted for substantially linear motion, the pawl being actuated by rotation of the lever handle and traveling substantially linearly between an open position to a closed position as the lever handle is rotated between the first position to second position;
 - wherein the pawl is mounted to travel between the open position along a first path and an intermediate position; and
 - wherein the pawl is mounted to travel in a second path in an upward direction substantially perpendicular to the first path between the intermediate position and the closed position.
10. A linear compression latch according to claim 9 wherein the first path is linear.
11. A linear compression latch according to claim 9 wherein the second path is linear.
12. A linear compression latch according to claim 11 further comprising a carriage, the carriage being mounted for linear motion within the housing, the pawl being mounted within the carriage.
13. A linear compression latch according to claim 12 further comprising connection means for rotatably connecting the lever handle and the pawl.

EVIDENCE APPENDIX

There is no evidence included with this brief.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.